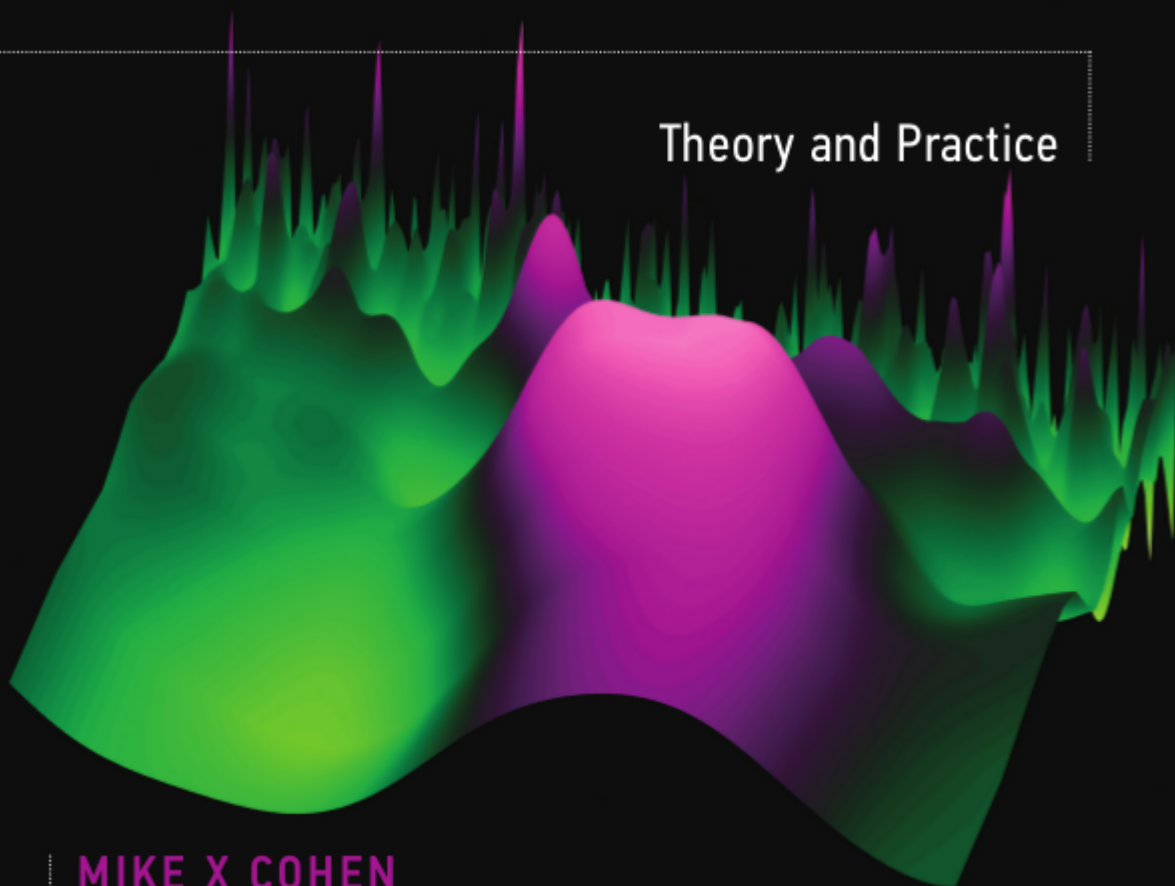


ANALYZING NEURAL TIME SERIES DATA

Theory and Practice

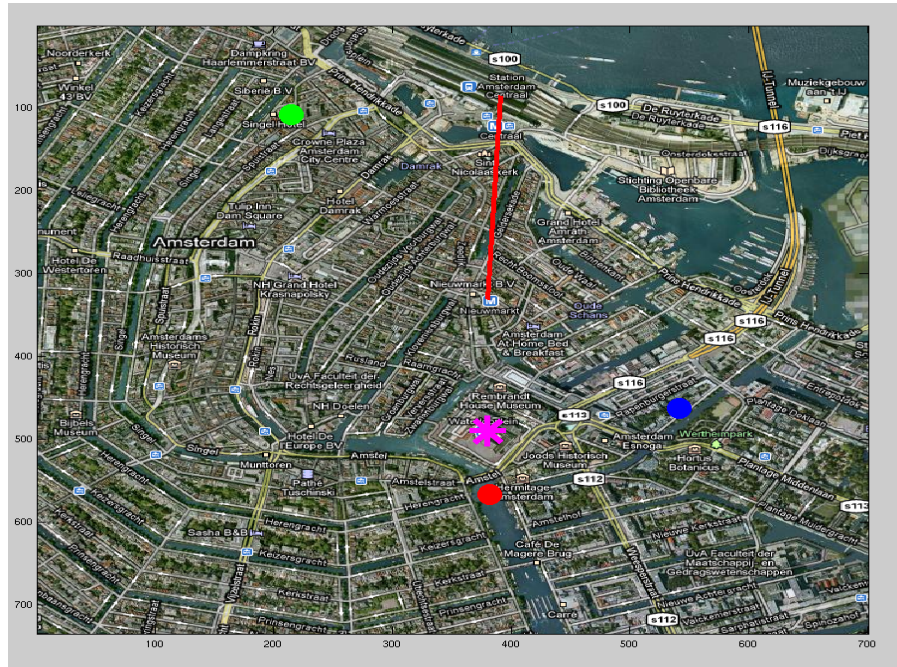
MIKE X COHEN



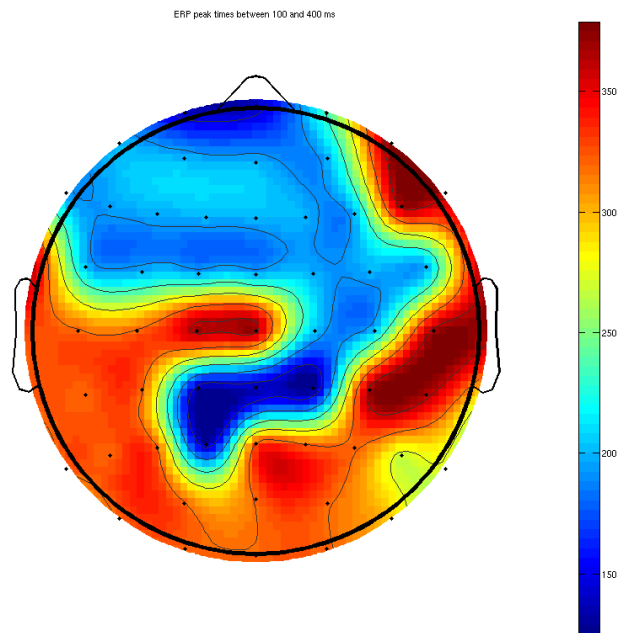
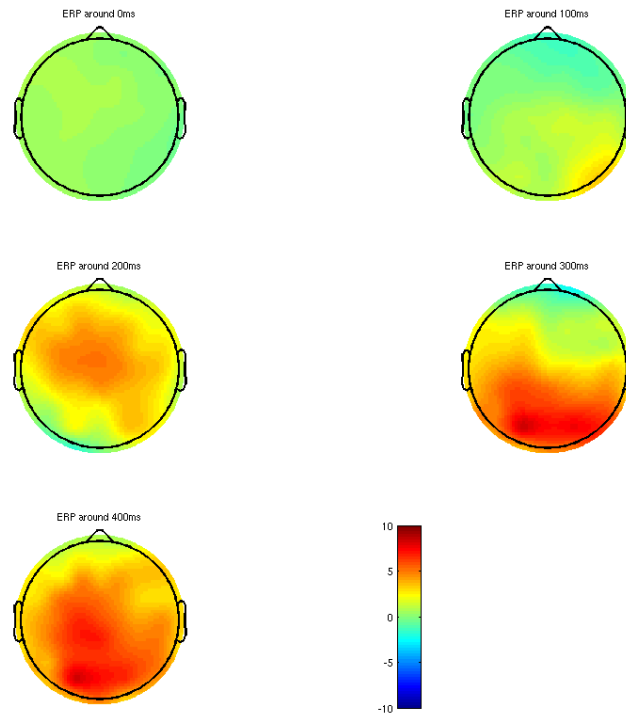
Solutions to end-of-chapter exercises

Matlab code is not provided for the exercises at the end of chapters. However, screenshots of Matlab figures are shown, indicating possible solutions. If your solutions look like the ones shown here, it is likely that you correctly solved the exercises. Note, however, that the results may not look identical if you chose different electrodes/time windows/frequencies/etc.

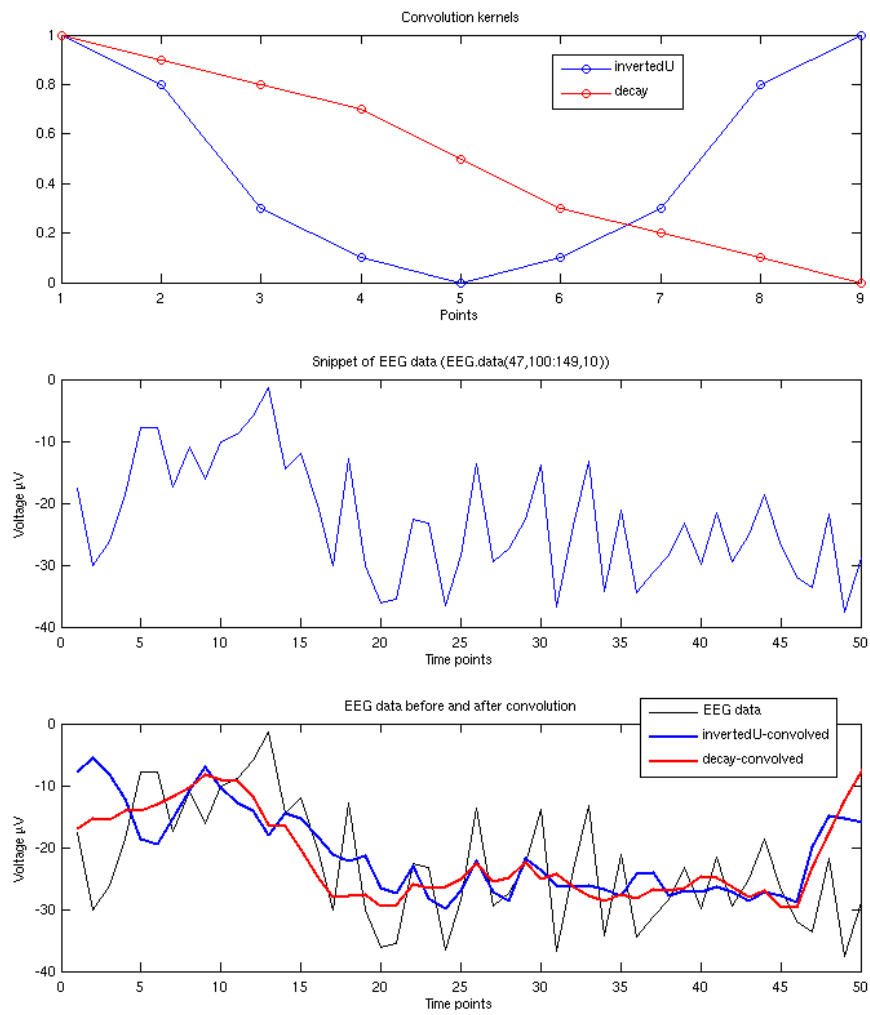
Chapter 4



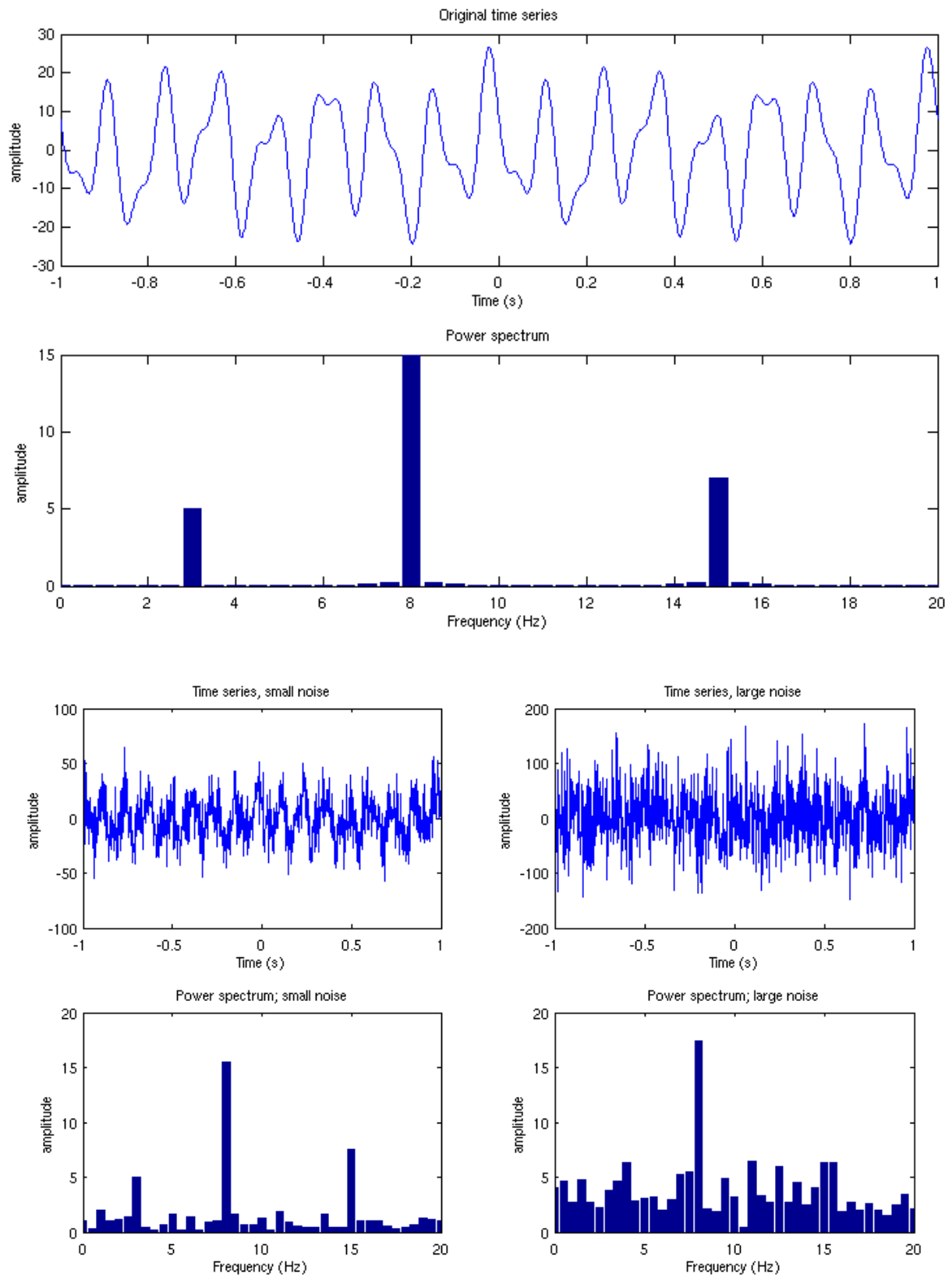
Chapter 9



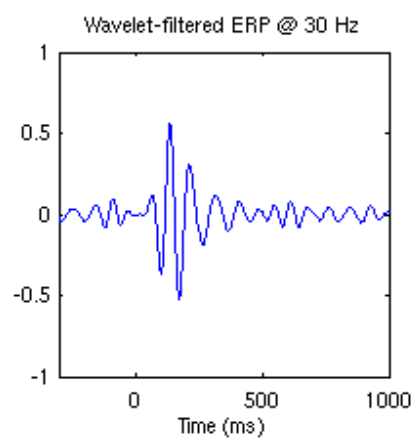
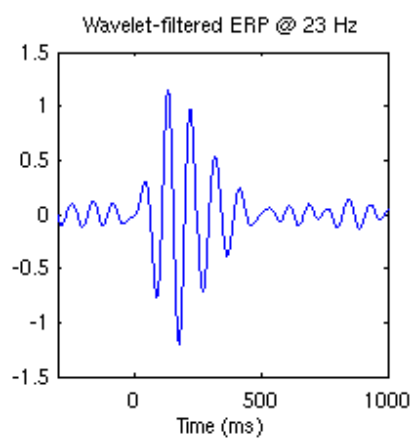
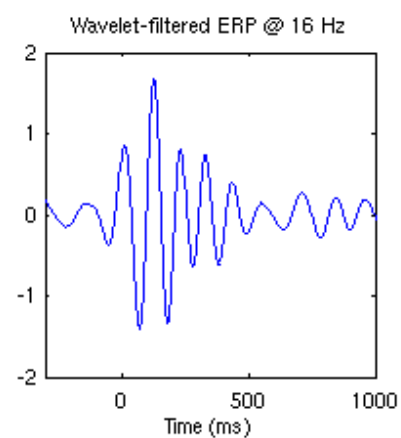
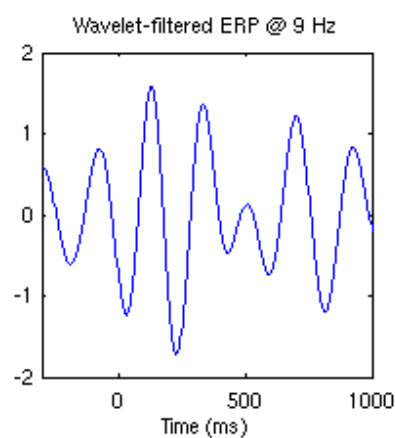
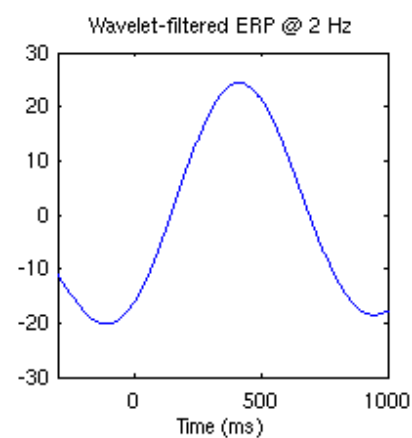
Chapter 10



Chapter 11

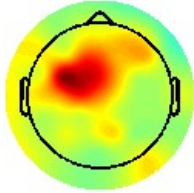


Chapter 12

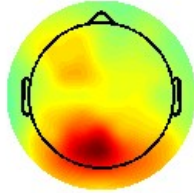


Chapter 13

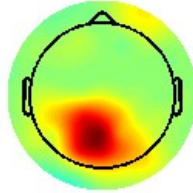
Pwr: 2Hz, 180ms



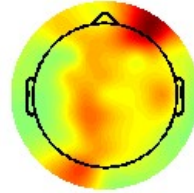
Pwr: 9Hz, 180ms



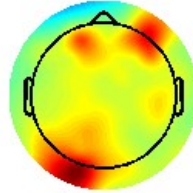
Pwr: 16Hz, 180ms



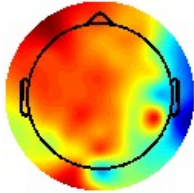
Pwr: 23Hz, 180ms



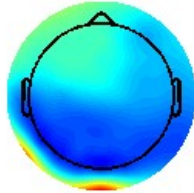
Pwr: 30Hz, 180ms



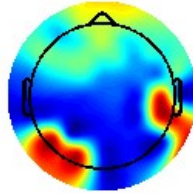
Phs: 2Hz, 180ms



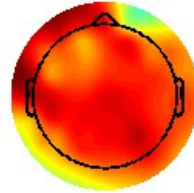
Phs: 9Hz, 180ms



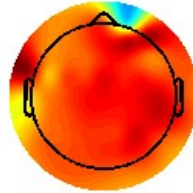
Phs: 16Hz, 180ms



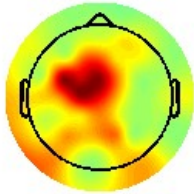
Phs: 23Hz, 180ms



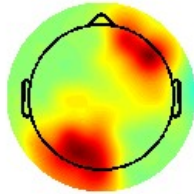
Phs: 30Hz, 180ms



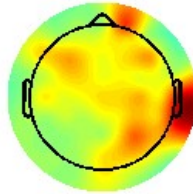
Pwr: 2Hz, 359ms



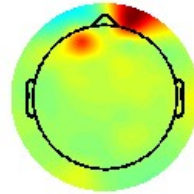
Pwr: 9Hz, 359ms



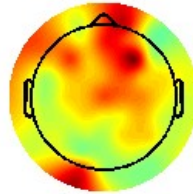
Pwr: 16Hz, 359ms



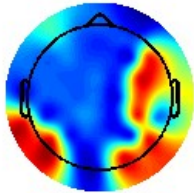
Pwr: 23Hz, 359ms



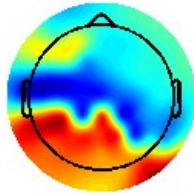
Pwr: 30Hz, 359ms



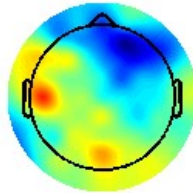
Phs: 2Hz, 359ms



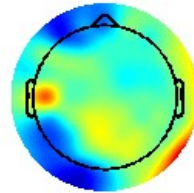
Phs: 9Hz, 359ms



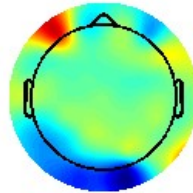
Phs: 16Hz, 359ms



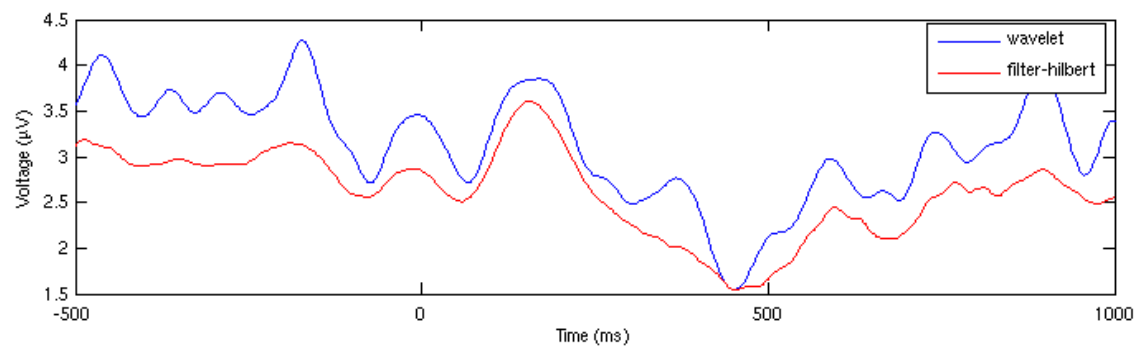
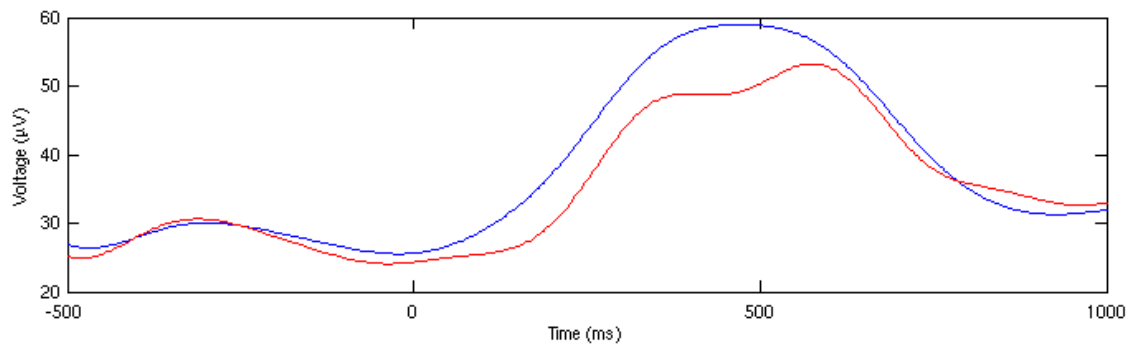
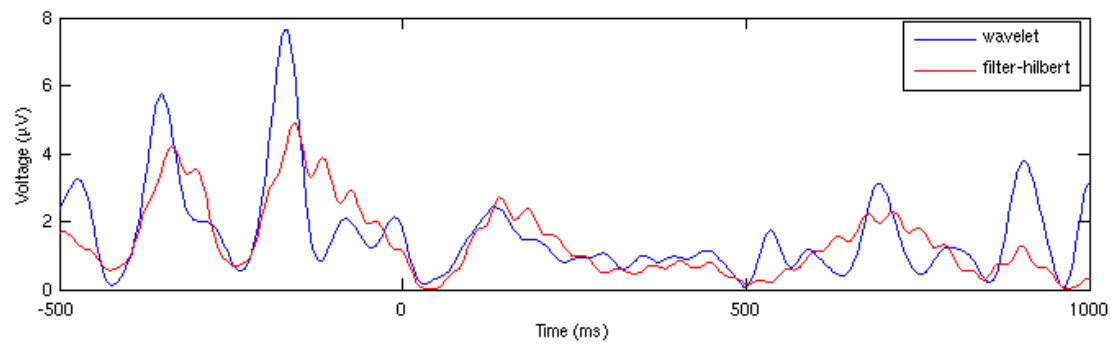
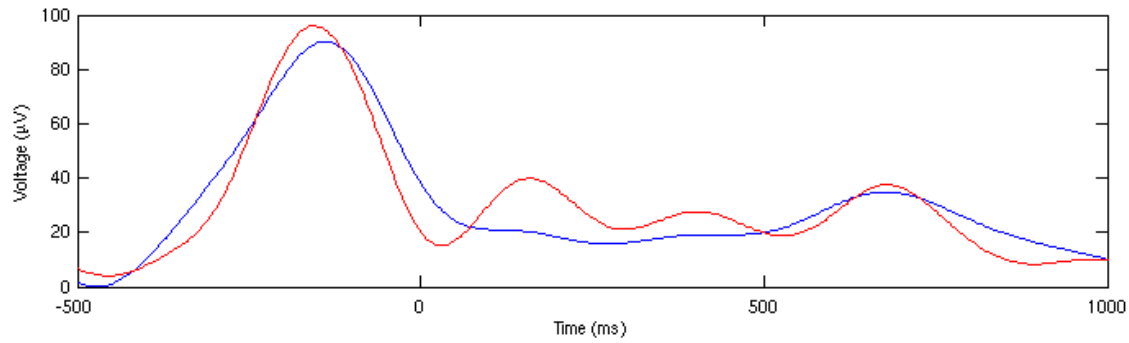
Phs: 23Hz, 359ms



Phs: 30Hz, 359ms

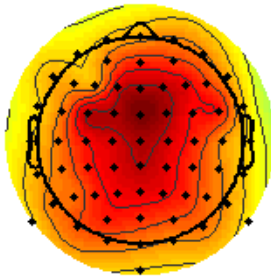


Chapter 14

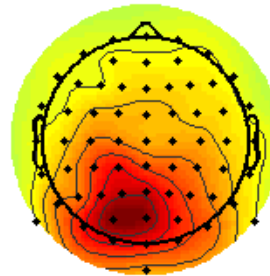


Chapter 15

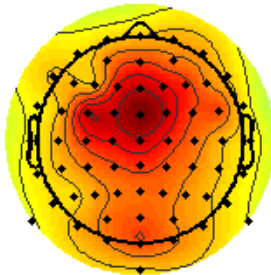
150ms, 6Hz



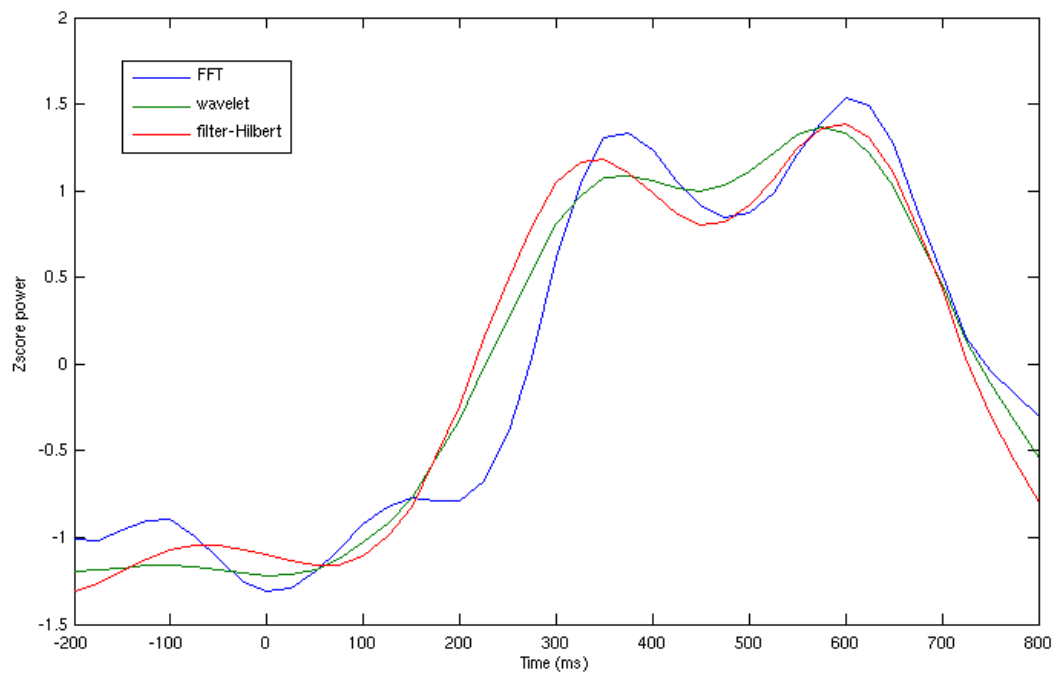
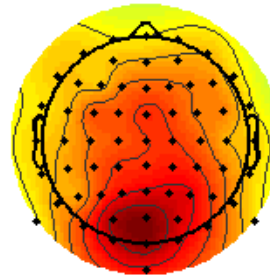
150ms, 10Hz



700ms, 6Hz

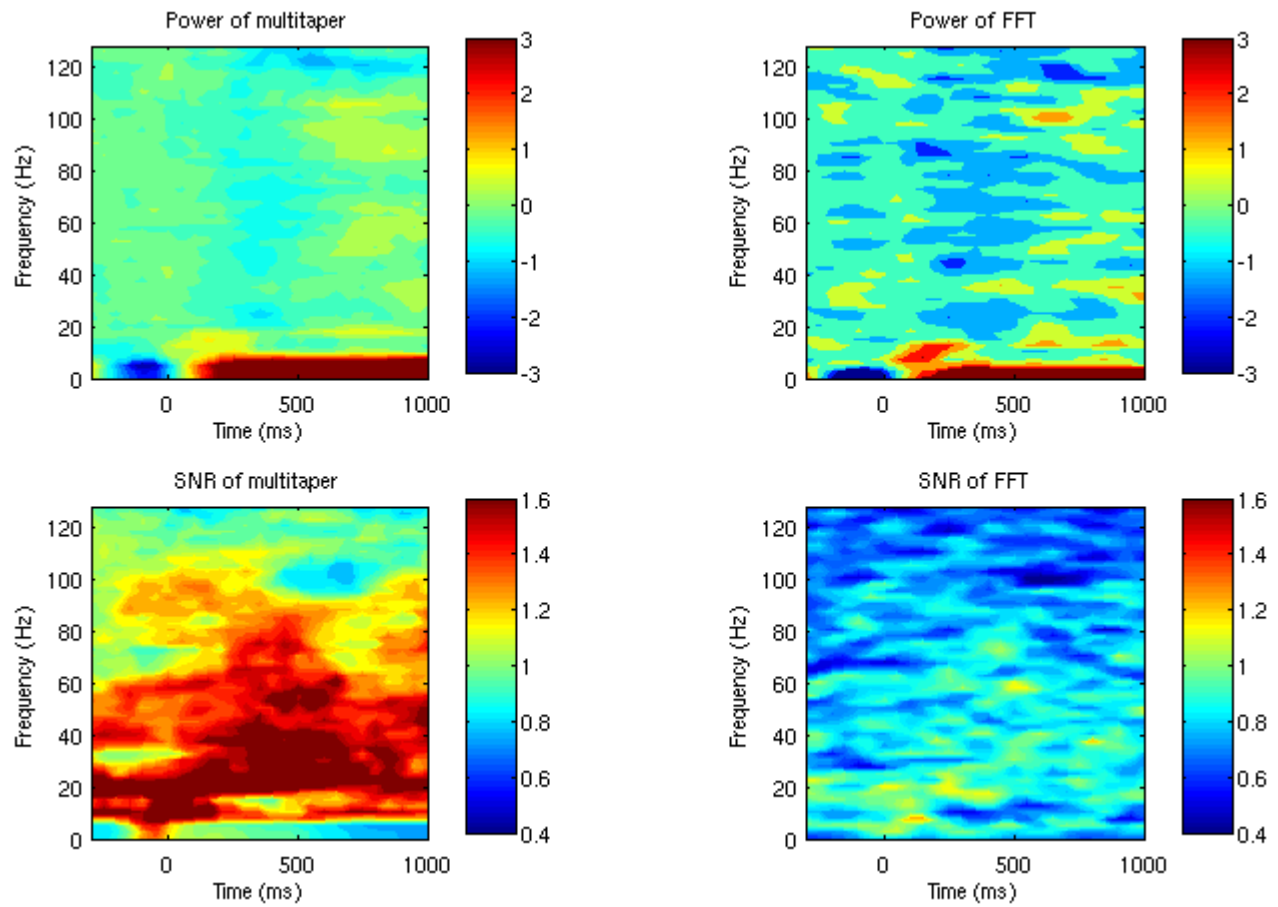


700ms, 10Hz



Chapter 16

Electrode P7



Chapter 18

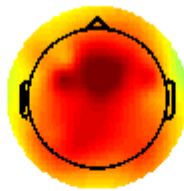
Raw power, 0ms



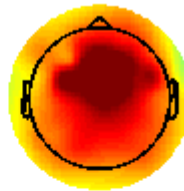
Raw power, 100ms



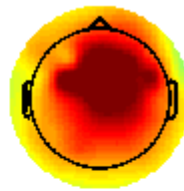
Raw power, 200ms



Raw power, 300ms



Raw power, 400ms



DB power, 0ms



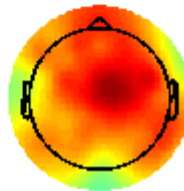
DB power, 100ms



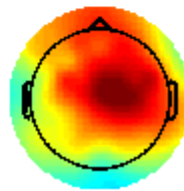
DB power, 200ms



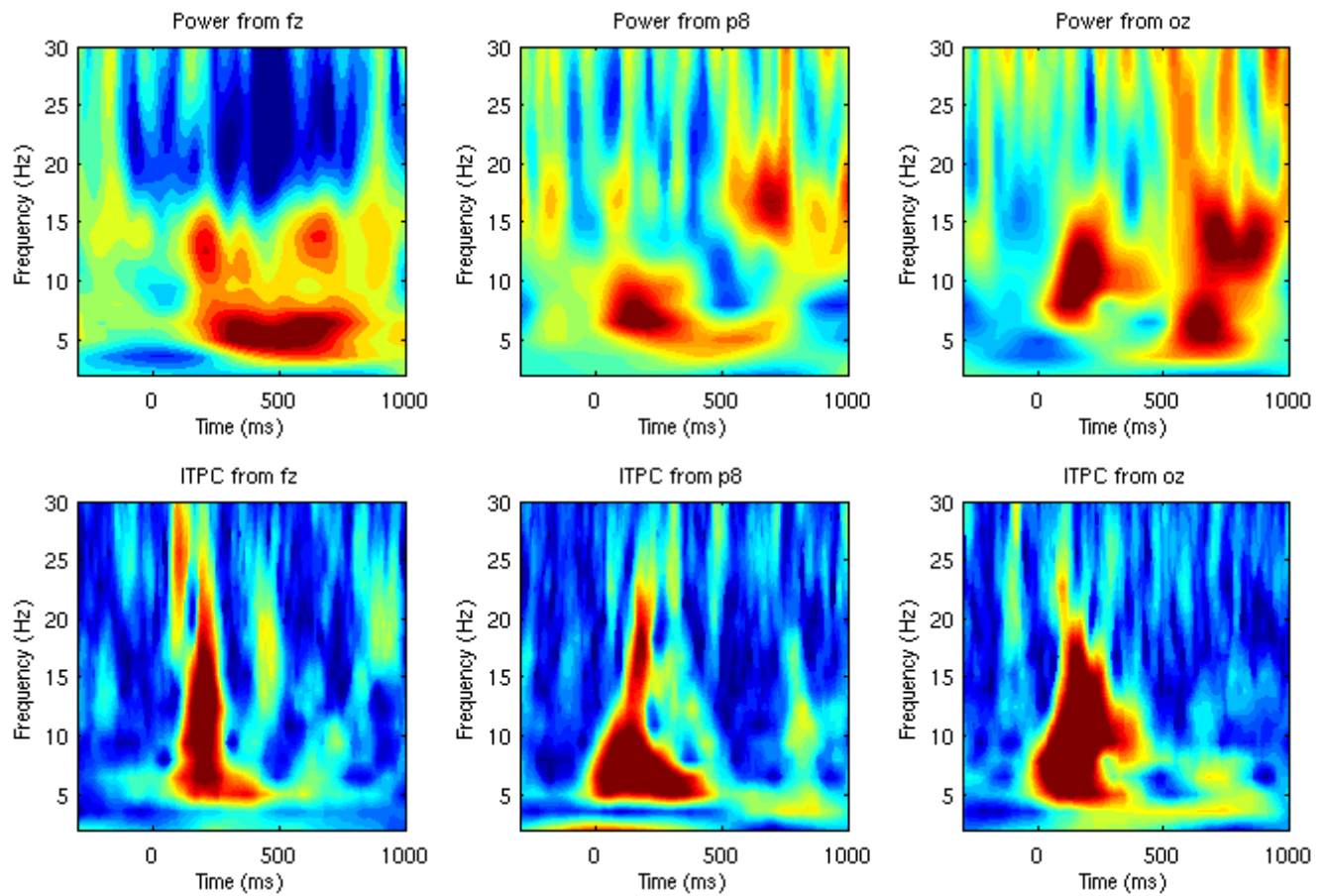
DB power, 300ms



DB power, 400ms

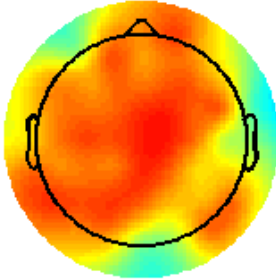


Chapter 19

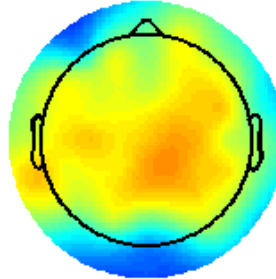


Chapter 20

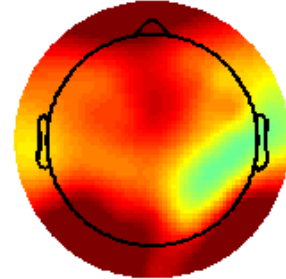
Total (5Hz, 100-300ms)



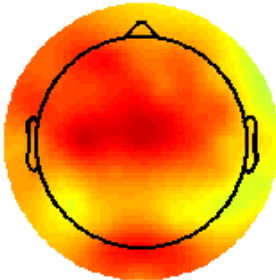
Non-phase-locked (5Hz, 100-300ms)



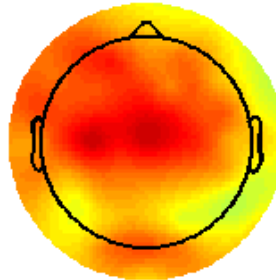
Phase-locked (5Hz, 100-300ms)



Total (5Hz, 600-900ms)



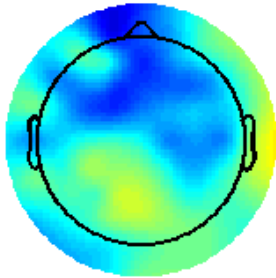
Non-phase-locked (5Hz, 600-900ms)



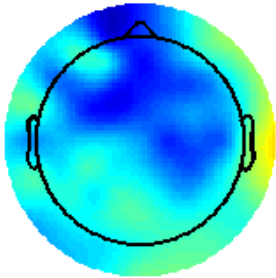
Phase-locked (5Hz, 600-900ms)



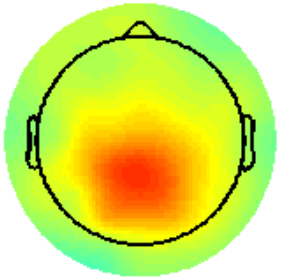
Total (20Hz, 100-300ms)



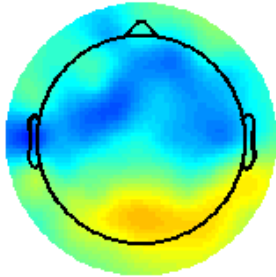
Non-phase-locked (20Hz, 100-300ms)



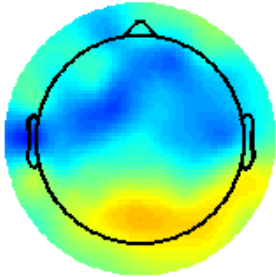
Phase-locked (20Hz, 100-300ms)



Total (20Hz, 600-900ms)



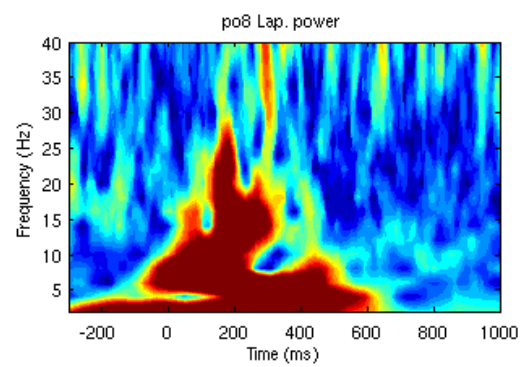
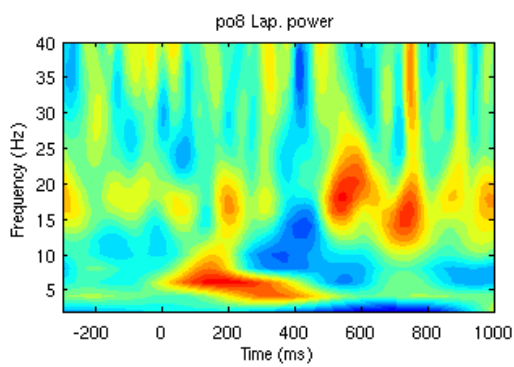
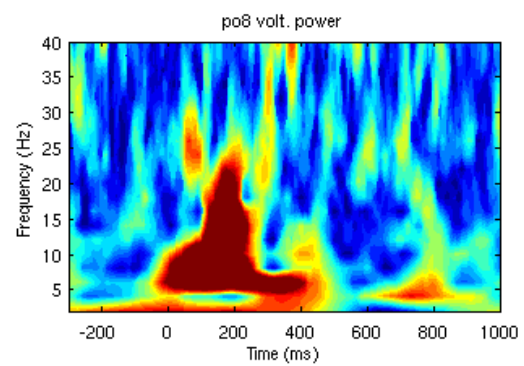
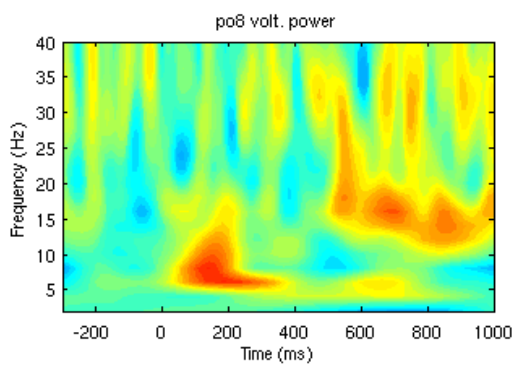
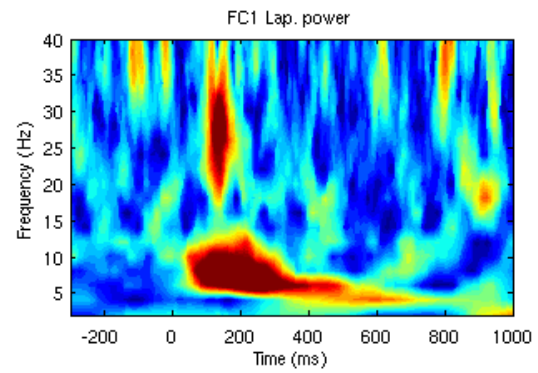
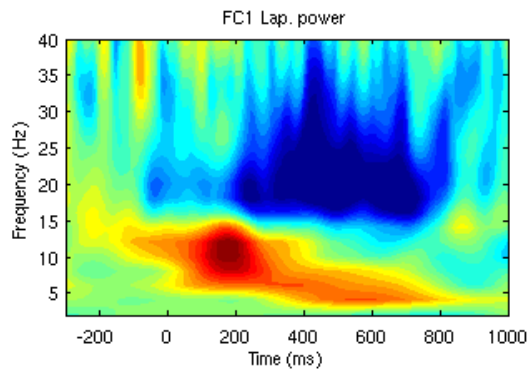
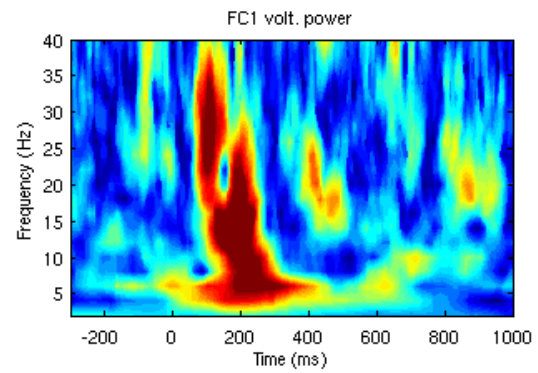
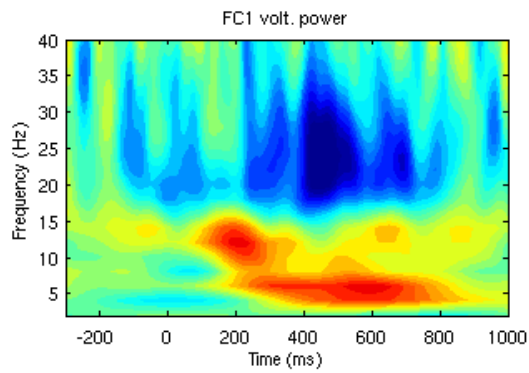
Non-phase-locked (20Hz, 600-900ms)



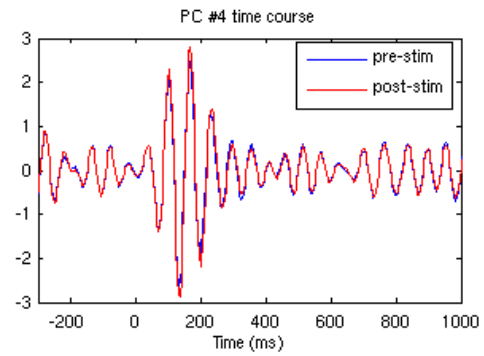
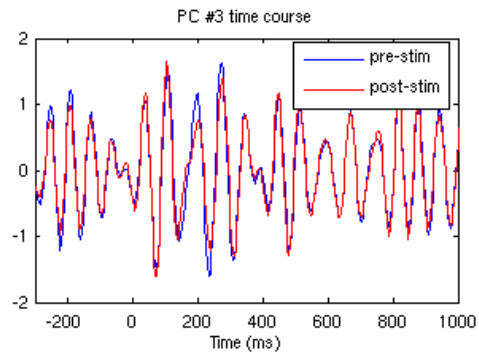
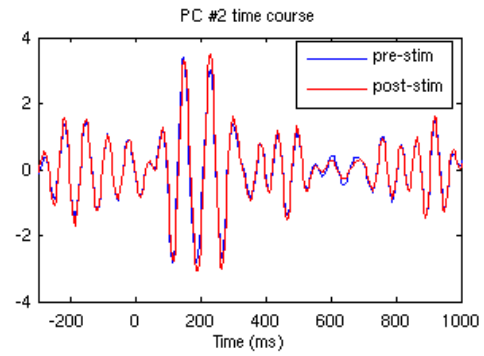
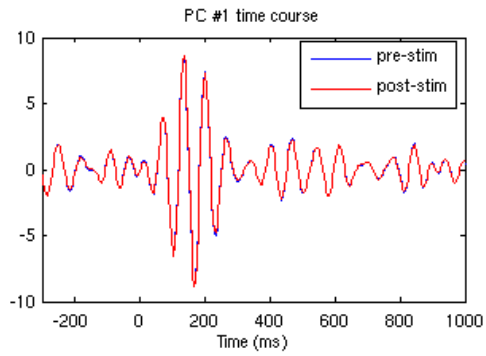
Phase-locked (20Hz, 600-900ms)



Chapter 22



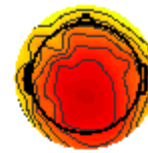
Chapter 23



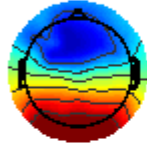
pre-stim PC #1 map



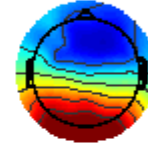
post-stim PC #1 map



pre-stim PC #2 map



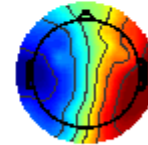
post-stim PC #2 map



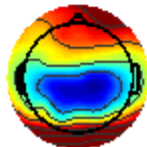
pre-stim PC #3 map



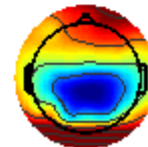
post-stim PC #3 map



pre-stim PC #4 map



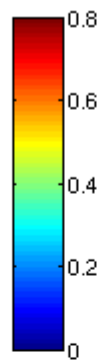
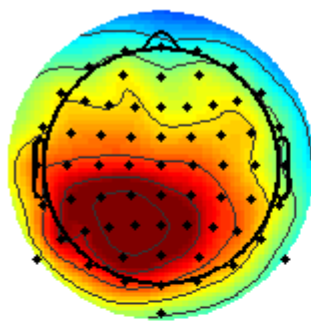
post-stim PC #4 map



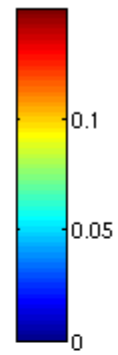
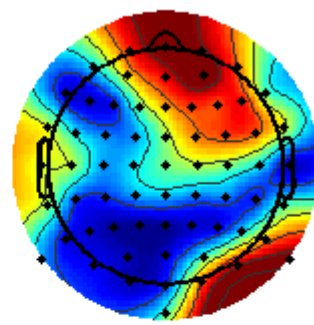
Chapter 26

Seed electrode was P1, 5 Hz

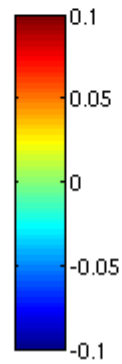
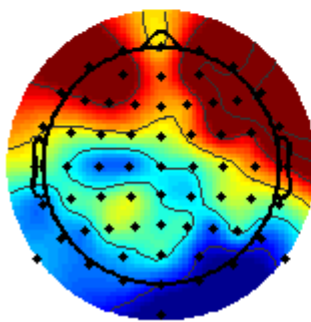
ISPC-trials, no baseline correction



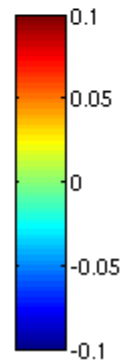
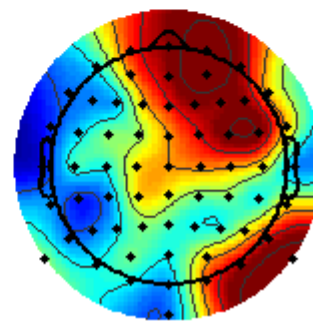
Imaginary coherence, no baseline correction



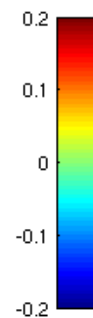
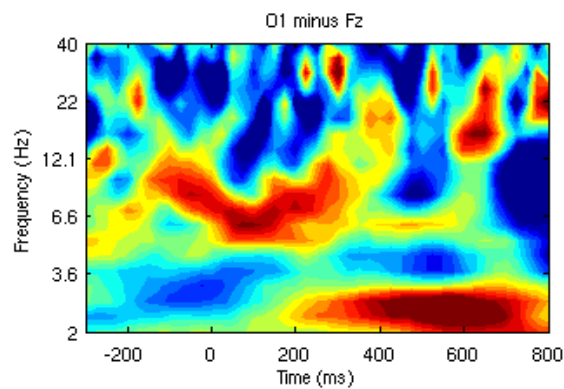
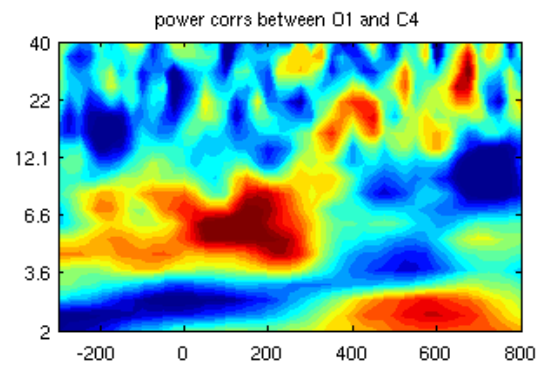
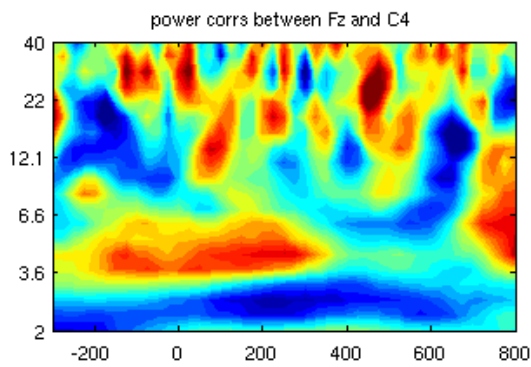
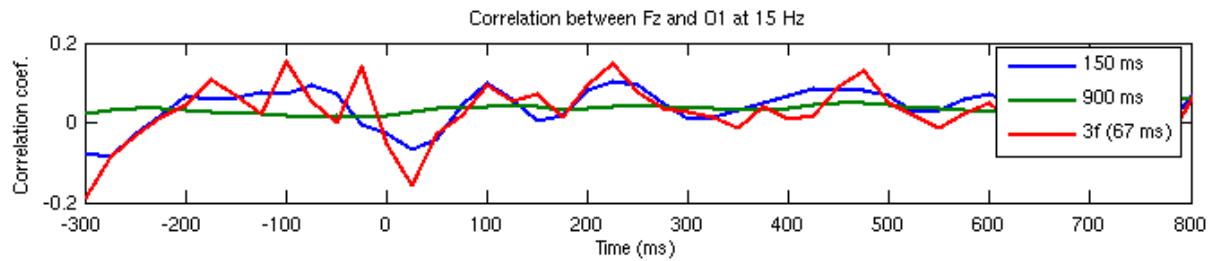
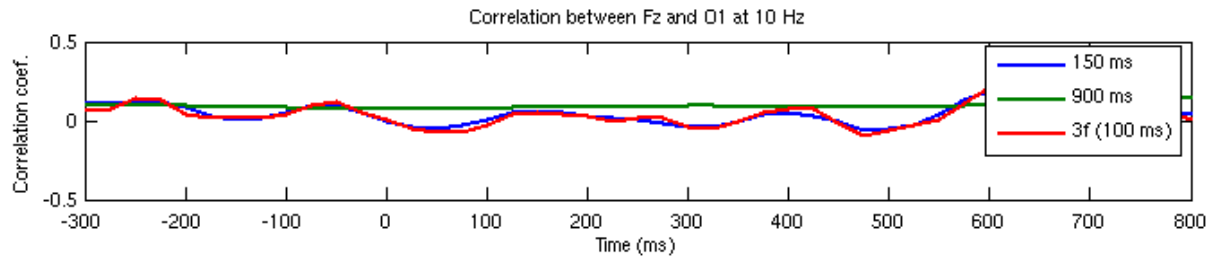
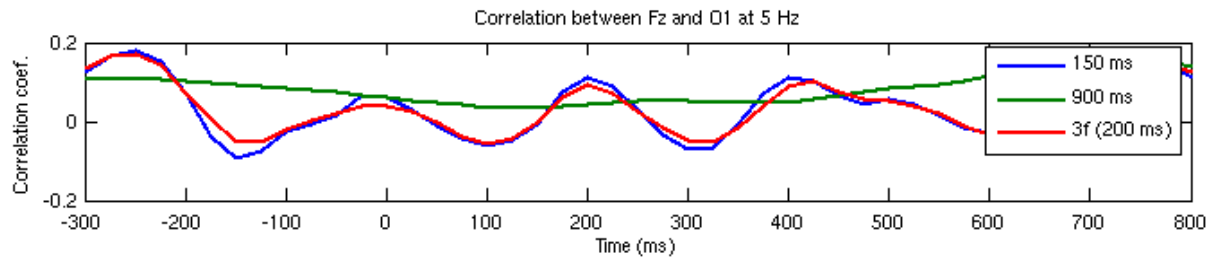
ISPC-trials, baseline corrected



Imaginary coherence, baseline corrected

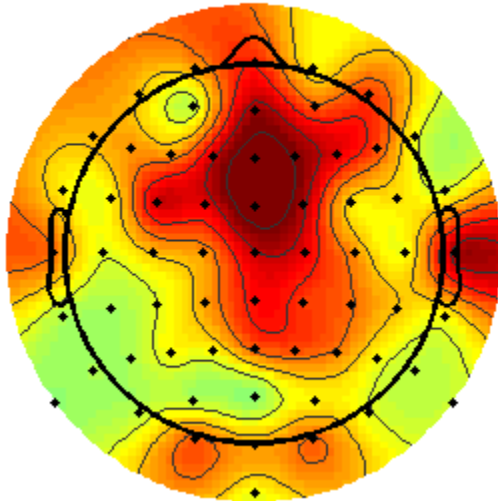


Chapter 27

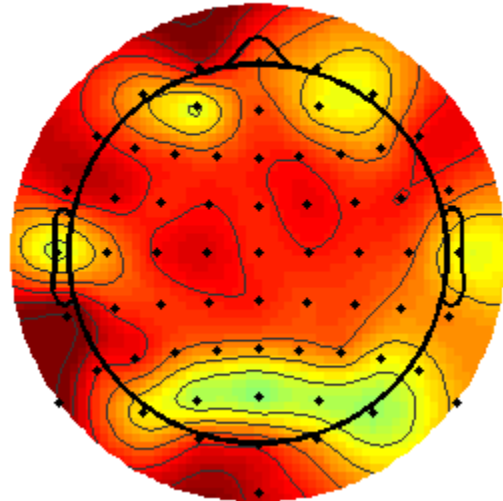


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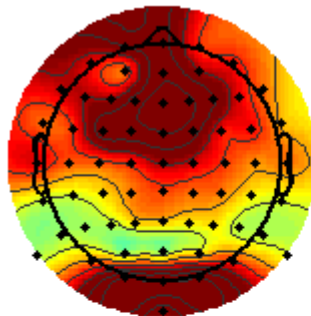
Granger prediction FROM poz (600-1200 ms)



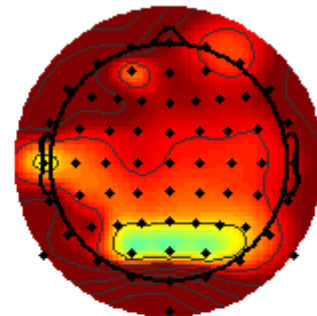
Granger prediction TO poz (600-1200 ms)



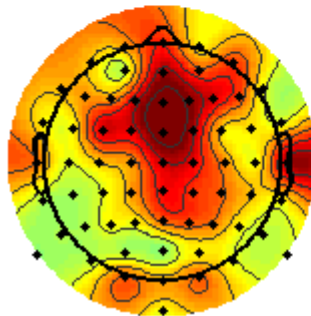
FROM poz (600-1200 ms), first 40



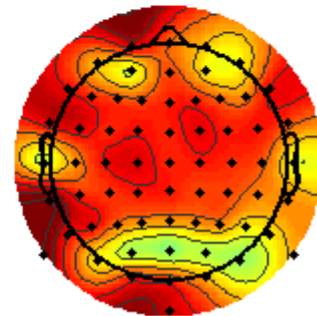
TO poz (600-1200 ms), first 40



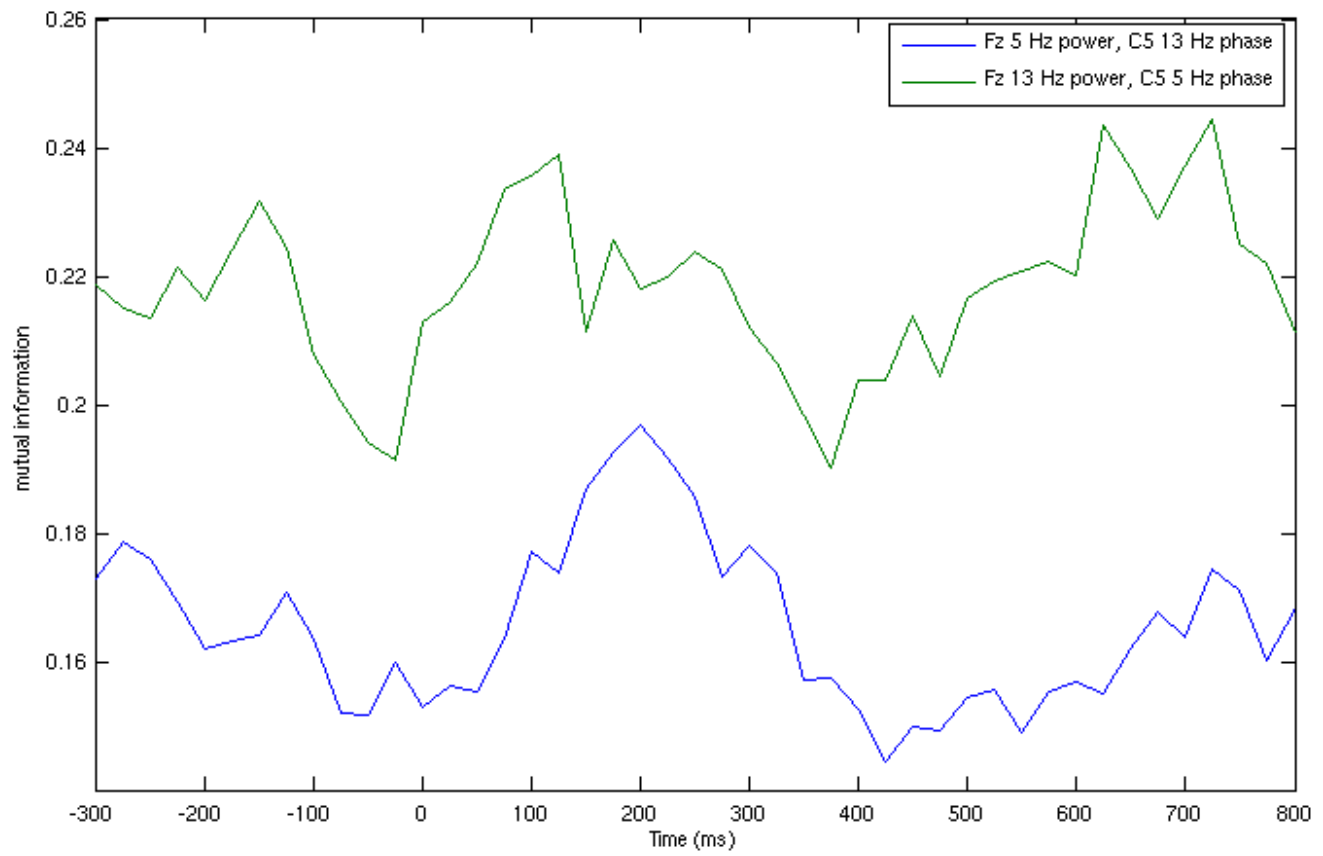
FROM poz (600-1200 ms), last 40



TO poz (600-1200 ms), last 40



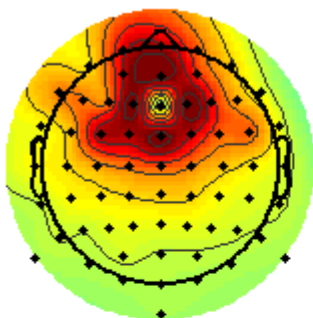
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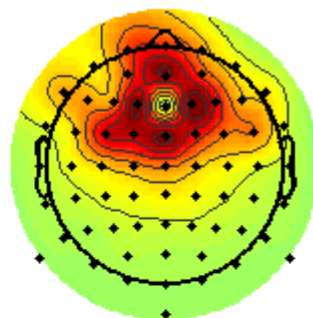
Chapter 29, continued

Seed electrode: Fz

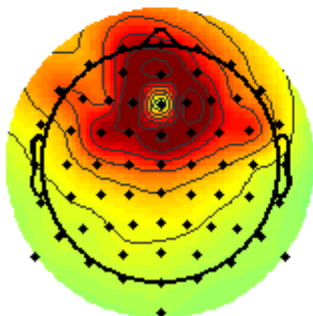
MI: 5 Hz,prestim



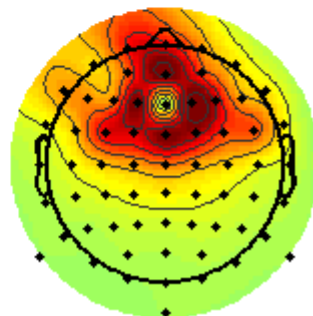
MI: 13 Hz,prestim



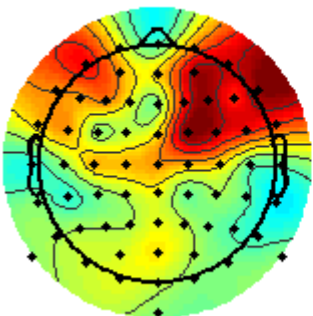
MI: 5 Hz,poststim



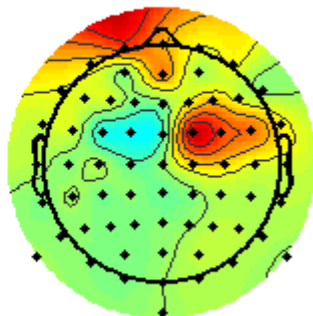
MI: 13 Hz,poststim



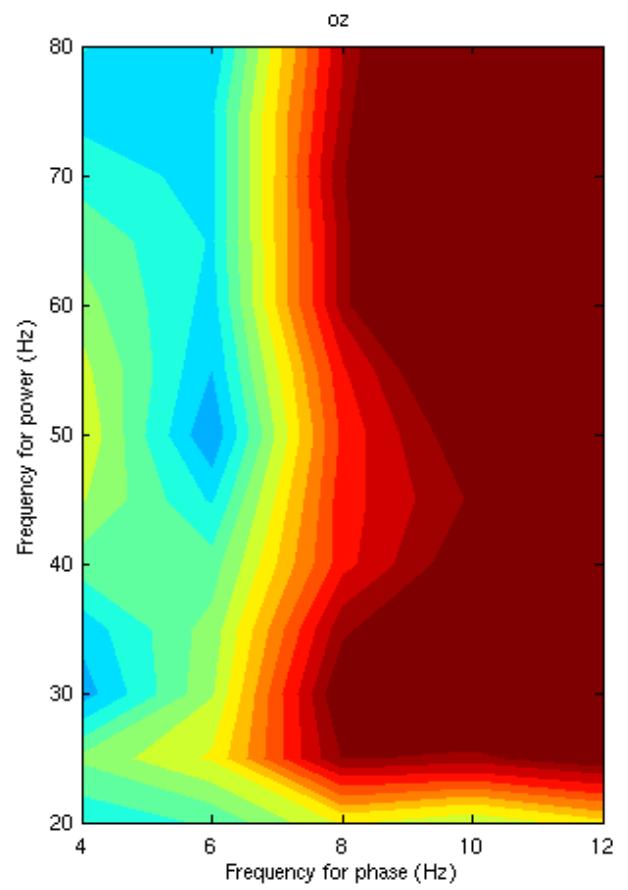
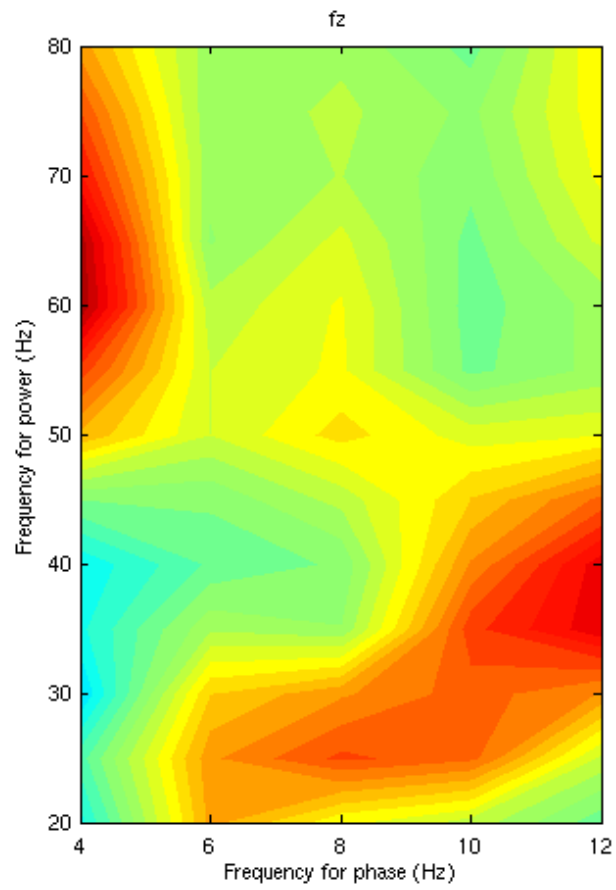
MI task-baseline: 5 Hz,poststim



MI task-baseline: 13 Hz,poststim

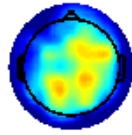


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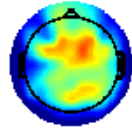


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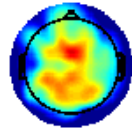
Degree (6 Hz, -200 ms, first 40 trials)



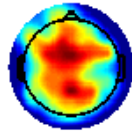
Degree (11 Hz, -200 ms, first 40 trials)



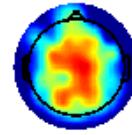
Degree (6 Hz, 400 ms, first 40 trials)



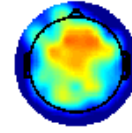
Degree (11 Hz, 400 ms, first 40 trials)



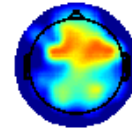
Degree (6 Hz, -200 ms, last 40 trials)



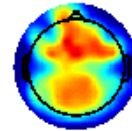
Degree (11 Hz, -200 ms, last 40 trials)



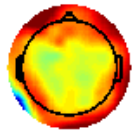
Degree (6 Hz, 400 ms, last 40 trials)



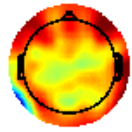
Degree (11 Hz, 400 ms, last 40 trials)



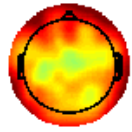
Degree (6 Hz, -200 ms, first 40 trials)



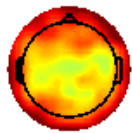
Degree (11 Hz, -200 ms, first 40 trials)



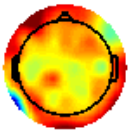
Degree (6 Hz, 400 ms, first 40 trials)



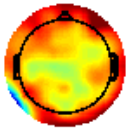
Degree (11 Hz, 400 ms, first 40 trials)



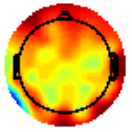
Degree (6 Hz, -200 ms, last 40 trials)



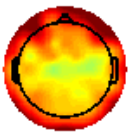
Degree (11 Hz, -200 ms, last 40 trials)



Degree (6 Hz, 400 ms, last 40 trials)



Degree (11 Hz, 400 ms, last 40 trials)



Chapter 31, continued

